

REMARKS

The Office Action of August 5, 2011 presents the examination of claims 1-10 and 12.

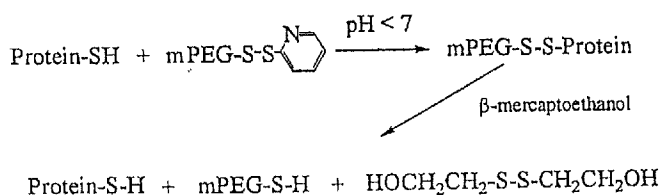
Claim 8 is amended herein to clarify that a particular thioester bond residing in the active site of an enzyme is the one from which the polymer is eliminated in that embodiment. This amendment is supported by the specification, for example by the working examples, which show a decrease in specific activity of some enzymes upon reaction with the "pegylating" reagent, followed by restoration of the activity of the enzymes following elimination of the polymer from a cysteine residue in the active site.

New claim 17, dependent from claim 8, is added. New claim 17 is supported by the original claim 10 and by the data in Tables 7 and 8 of the present specification.

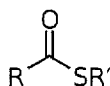
Rejection over prior art

Claims 1-10 and 12 stand rejected under 35 USC § 102(b) as anticipated by El Tayar et al. WO '377. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

The Examiner explains that El Tayar discloses the following reaction...



Thus, the Examiner asserts that the reference discloses forming a conjugate of a protein with a polymer and elimination of the polymer from the protein. In El Tayar, the conjugate is formed by a disulfide bond. However, El Tayar does not disclose or in any way suggest the presently-claimed invention, which relates to elimination of a polymer from a protein conjugate via a thioester bond. The structure of a thioester is shown below (from Wikipedia)...



Plainly the present claims relate to a reaction that is different from the one described by El Tayar. Accordingly, the instant rejection should be withdrawn.

Claims 1-10 and 12 are also rejected under 35 USC § 103(a) as being unpatentable over El Tayar et al. in view of Tan WO '284. This rejection is respectfully traversed.

Reconsideration and withdrawal thereof are requested.

The Examiner asserts El Tayar as teaching the conjugation and elimination reactions shown above (*via* a disulfide bond) and cites Tan for the feature of the dependent claims that the protein is an enzyme and specifically methioninase. The number of polymer molecules eliminated from the conjugate recited in claim 10 is said to be a matter of routine experimentation.

Applicants submit that the Examiner fails to establish *prima facie* obviousness of the claimed invention. In particular, the combination of references fails to disclose or suggest at least one feature recited in the claims. In the present instance, as explained above, the combined references do not disclose or suggest elimination of a polymer conjugated to a protein *via* a thioester bond.


Applicants submit that the present claims recite subject matter that is free of the prior art of record. The favorable actions of withdrawal of the standing rejections and allowance of the present claims are respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mark J. Nuell, Ph.D., Reg. No. 36,623, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: November 4, 2011

Respectfully submitted,

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